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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,987	03/27/2000	Lior Shabtay	I-1-2-2-1-1-5	4327
47701	7590	04/15/2005	EXAMINER	
RYAN, MASON & LEWIS, LLP			TRAN, PHUC H	
90 FOREST AVENUE				
LOCUST VALLEY, NY 11560			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/535,987	SHABTAY ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	PHUC H TRAN	2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-49 and 77-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 33-49 is/are allowed.
- 6) Claim(s) 1-18,21,22,24,77-79,81 and 82 is/are rejected.
- 7) Claim(s) 19,20,23,25-32 and 80 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/27/00.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 10 and 40 are objected to because of the following informalities: “ICMP” need to describe in full word. Appropriate correction is required.
2. Claim 25 is objected to because of the following informalities: “STA” need to describe in full word. Appropriate correction is required.
3. Claims 33-49 are objected to because of the following informalities: “the forwarding state” in line 5, is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 6-7, 11-12, 14-18, 21-22, 24, 77-79 and 81-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Gai et al. (U.S. Patent No. 6032194).
  - With respect to claims 1,17-18, 22, 24, 77, & 81-82, Gai teaches a method of managing connectivity between an end-device and one of a plurality of bridging-devices connected to the end-device, comprising:

transmitting test messages by each of the bridging-devices, transmitting test messages by the end-device (e.g. the message BPDU from devices in Fig.1);

determining, in each of the bridging-devices, with which of the other devices there is an operative connection, based on the test messages the bridging-device receives (col. 5, lines 54-60); and

determining, in each of the bridging-devices, whether a port leading to the end-device should be in a forwarding or blocking state responsive to the determination of the operative connections (col. 5, lines 60-66).

- With respect to claim 6, Gai discloses wherein the end-device is connected to the bridging-devices through a single port of the end-device (e.g. the switches in Fig. 1).

- With respect to claim 7, Gai teaches wherein transmitting the test messages by the end-device comprises transmitting said messages in response to response requests from at least one of the bridging-devices (col. 3, lines 51-52).

- With respect to claims 11 &12, Gai teaches wherein transmitting the test messages by the bridging-devices and the end-device comprises transmitting messages with Bridge Protocol data Units (BPDU) destination addresses (col. 10, lines 4-5).

- With respect to claims 14-16, 21, & 78, Gai teaches wherein transmitting the test messages by the bridging-devices comprises transmitting messages which include acknowledgments of test messages recently received from other bridging-devices (col. 3, lines 48-67).

- With respect to claim 79, Gai discloses wherein transmitting messages from the at least one second bridging-device to the at least one first bridging-device comprises transmitting spanning tree algorithm BPDUs (col. 10, lines 1-25).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5, 8-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gai et al. (U.S. Patent No. 6032194) in view of Suzuki (U.S. Patent No. 5796736).

- With respect to claims 2-3, Gai discloses all the aspect of the claimed invention as set forth above but fails to teach wherein the bridging-devices and end-device are connected through a common Ethernet repeater. Suzuki teaches Ethernet (in Fig. 3) for communication between network devices. The Ethernet in Suzuki's invention can be implemented by inputting between switches device of Gai's invention. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the Ethernet for using the Ethernet as taught by Suzuki in the communication network for faster transmission in the communication system.

- With respect to claims 4-5, Gai discloses wherein the at least one additional end-device transmits or not transmit test messages (e.g. the message transmits when the device detects a failure in the communication system).

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- With respect to claims 8-10, & 13, Gai fails to teach wherein transmitting the test messages by the bridging-devices comprises transmitting ARP messages or ICMP messages. Suzuki teaches the ARP information (col. 2, lines 15-25) and ICMP echo (col. 1, line 46). The ARP information and ICMP echo can be implemented into dummy messages of Gai's invention. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the ARP information and ICMP echo for communication between devices in the network and determining the other devices' operative connection.

***Allowable Subject Matter***

8. Claims 33-49 are allowed.
9. Claims 19-20, 23, 25-32, and 80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran  
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4/12/05

  
